

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of performing cell selection handoffs in a wireless communication system, wherein the wireless communication system includes a plurality of base stations in communication with a mobile station (MS), wherein the base stations transmit information to the mobile station via a forward link, and wherein the base stations receive information from the mobile station via a reverse link, and wherein each base station is capable of gating off transmissions for selected time intervals, and wherein the mobile station is capable of determining a strongest base station, and wherein the MS has an associated and corresponding active set of base stations comprising base stations with which the MS currently communicates, and wherein the communication system is capable of performing soft handoffs, comprising the steps of:

- a) determining a desired set of base stations, ~~based upon~~ wherein the determining step comprises:
 - (i) obtaining a threshold parameter based upon receiver needs for proper reception, ~~and wherein the threshold is dependent upon a minimum of MS received power that is necessary to achieve a desired Quality of Service (QoS) for the MS,~~
 - (ii) determining relative base station signal strength for each base station in the active set, and
 - (iii) selecting a minimum number of relatively strong base stations from the active set required to provide the minimum of MS received power to the MS, wherein a combined signal strength of the selected strong base stations are compared with the threshold, and wherein additional strong base stations are selected from the active set until the combined signal strength exceeds the threshold
 - ~~(ii) comparing a sum of one or more base station signal strengths to the threshold parameter;~~
- b) ~~temporarily gating off selected base stations based on the desired set of base stations that was all~~ base stations except for the desired set of base stations determined during step (a) for a selected time interval; and
- c) performing a soft handoff.

2. (Currently amended) The method of performing cell selection handoffs as defined in Claim 1, wherein the step (a) ~~comprises determining a set of strong base stations within a mobile station active set~~ selected time interval comprises a Power Control Group (PCG) time slot.
3. (Currently amended) The method of performing cell selection handoffs as defined in Claim 1, wherein the step (a) ~~comprises~~ includes determining a set of strong base stations on a Power Control Group ("PCG") basis.
4. (Currently amended) The method of performing cell selection handoffs as defined in Claim 1, wherein the step (b) ~~comprises gating off all base stations except for the desired set of base stations~~ selected time interval comprises approximately 1.25 milliseconds.
5. (Currently amended) The method of performing cell selection handoffs as defined in Claim 1, wherein the step (a) ~~comprises~~ includes the following sub-steps:
 - i) measuring carrier-to-interference ratios of all of the base stations in ~~a mobile station~~ the active set; and
 - ii) selecting a base station having a best signal to noise (E_b/N_t) to achieve ~~a specified~~ the desired QoS to be a ~~chosen~~ selected base station of the desired set of base stations.
6. (Original) The method of performing cell selection handoffs as defined in Claim 1, wherein the step (a) is performed by a mobile station.
7. (Currently amended) The method of performing cell selection handoffs as defined in Claim 1, wherein the step (a) ~~comprises~~ includes the following sub-steps:
 - i) measuring a plurality of received pilot E_c/I_o values that represents a pilot E_c/I_o for each pilot in ~~a~~ the mobile station active set;
 - ii) averaging the plurality of received pilot E_c/I_o values; and
 - iii) selecting a base station having a best pilot E_c/I_o value to be a ~~chosen~~ selected base station of the desired set of base stations.
8. (Original) The method of performing cell selection handoffs as defined in Claim 7, wherein the averaging sub-step (ii) is implemented by hardware.
9. (Original) The method of performing cell selection handoffs as defined in Claim 7, wherein the averaging sub-step (ii) is implemented by software.

10. (Original) The method of performing cell selection handoffs as defined in Claim 7, wherein the averaging sub-step (ii) is performed by a filter.
11. (Original) The method of performing cell selection handoffs as defined in Claim 10, wherein the averaging sub-step (ii) is performed by an IIR filter.
12. (Original) The method of performing cell selection handoffs as defined in Claim 10, wherein the averaging sub-step (ii) is performed by an FIR filter.
13. (Currently amended) The method of performing cell selection handoffs as defined in Claim 1, wherein the step (b) comprises transmitting a gate off message to all base stations in ~~a~~ the mobile station active set except for the desired set of base stations.
14. (Currently amended) The method of performing cell selection handoffs as defined in Claim ~~1~~ 13, wherein the gate off message is transmitted via a feedback channel.
15. (Previously presented) The method of performing cell selection handoffs as defined in Claim 14, wherein the feedback channel has a length of one to several Power Control Groups ("PCGs").
16. (Original) The method of performing cell selection handoffs as defined in Claim 14, wherein the feedback channel has a rate ranging between 200 Hz and 1600 Hz.
17. (Currently amended) The method of performing cell selection handoffs as defined in Claim 1, wherein the step (a) comprises the following sub-steps:
 - i) continuously determining channel condition estimate for each base station in ~~a~~ the mobile station active set;
 - ii) continuously sorting the channel condition estimates by strength; and
 - iii) continuously determining whether a strongest channel condition estimate is greater than the threshold parameter.
18. (Original) The method of performing cell selection handoffs as defined in Claim 17, wherein the determining sub-step (i) utilizes a sum of all usable multipath signals to estimate channel conditions.

19. (Original) The method of performing cell selection handoffs as defined in Claim 17, wherein the estimating sub-step (i) averages the continuous channel condition estimate during uncertainty periods.

20. (Original) The method of performing cell selection handoffs as defined in Claim 17, wherein the threshold parameter of the determining sub-step (iii) is defined by the following equation:

$$T_QOS_dB = FPC_FCH_SETPT + \Delta\chi .$$

21. (Original) The method of performing cell selection handoffs as defined in Claim 20, wherein the determining sub-step (iii) further comprises selecting additional continuous channel condition estimates until a combination of strong continuous channel condition estimates is greater than the threshold parameter.

22. (Currently amended) The method of performing cell selection handoffs as defined in Claim 20, wherein the determining sub-step (iii) further comprises selecting additional continuous channel condition estimates until $SUM_PILOTS > T_QOS_dB$ occurs, where SUM_PILOTS is a combined received power from all received pilots from a desired set of base stations in ~~a~~ the mobile station active set.

23. (Previously presented) The method of performing cell selection handoffs as defined in Claim 1, wherein the step (b) comprises the following sub-steps:

- i) selecting a desired set of base stations to transmit during a Power Control Group ("PCG") PCG_{N+2} ; and
- ii) gating off all remaining BSs in the active set.

24. (Currently amended) Apparatus for performing cell selection handoff functions in a wireless communication system, wherein the wireless communication system includes a plurality of base stations in communication with a mobile station (MS), wherein the base stations transmit information to the mobile station via a forward link, and wherein the base stations receive information from the mobile station via a reverse link, and wherein each base station is capable of gating off transmissions for selected time intervals, and wherein the mobile station is capable of determining a strongest base station, and wherein the MS has an associated and corresponding active set of base stations comprising base stations with which the MS currently communicates, and wherein the communication system is capable of performing soft handoffs, comprising:

- a) a base station selection module configured to determine a desired set of base stations by comparing a sum of strengths of one or more base station signals received by the mobile station to a threshold parameter, the threshold parameter being based upon requirements for proper reception by the mobile

station, wherein the threshold is dependent upon a minimum of MS received power that is necessary to achieve a desired Quality of Service (QoS) for the MS, and wherein the selection module selects a minimum number of relatively strong base stations from the MS active set required to provide the minimum of MS received power to the MS;

- b) a forward link instruction module configured to prepare instructions for temporarily gating off selected base stations for a selected time interval based on the desired set of base stations ~~that was~~ determined by the base station selection module; and
- c) a soft handoff control module configured to enable, after temporarily gating off the selected base stations, performance of the cell selection soft handoff functions.

25. (Currently amended) A computer program executable on a computing device, wherein the program is capable of directing performance of cell selection handoff functions in a wireless communication system, wherein the wireless communication system includes a plurality of base stations in communication with a mobile station, wherein the base stations transmit information to the mobile station via a forward link, and wherein the base stations receive information from the mobile station via a reverse link, and wherein each base station is capable of gating off transmissions for selected time intervals, and wherein the mobile station is capable of determining a strongest base station, and wherein the MS has an associated and corresponding active set of base stations comprising base stations with which the MS currently communicates, and wherein the communication system is capable of performing soft handoffs, comprising:

- a) a first set of instructions for determining a desired set of base stations by comparing a sum of strengths of one or more base station signals received by the mobile station to a threshold parameter, the threshold parameter being based upon requirements for proper reception by the mobile station, and wherein the threshold is dependent upon a minimum of MS received power necessary to achieve a desired Quality of Service (QoS) for the MS, and wherein the desired set comprises a minimum number of relatively strong base stations from the MS active set having a combined received signal strength that exceeds the threshold;
- b) a second set of instructions for temporarily gating off ~~selected base stations based on the desired set of base stations that was determined using the first set of instructions~~ all base stations except for the desired set of base stations for a selected time interval; and
- c) a third set of instructions for directing performance of soft handoff functions after completion of the first and second sets of instructions.

26. (Currently amended) The method of Claim 1, wherein the ~~threshold parameter is based upon a quality of service ("QoS") associated with the mobile station~~ desired set of base stations comprises only one base station.

27. (Currently amended) The method of Claim ~~26~~ 14, wherein the ~~sum of base station signal strengths is a sum of signal strengths from the desired set of base stations, and the sum is at least as great as the threshold parameter~~ feedback channel comprises a low latency feedback channel having relatively short transmission delays.